

WE CLAIM:

1. A latch unit for an electronic device including first and second housings pivoted to each other, the first housing being formed with opposite first and second slots, the second housing being formed with an upper slot, the first housing being rotatable relative to the second housing about a first axis to a closed position, in which, the first housing is stacked on the second housing, the first housing being rotatable relative to the second housing about a second axis between a first angular position, in which, the first slot confronts and is registered with the upper slot upon movement of the first housing to the closed position, and a second angular position, in which, the second slot confronts and is registered with the upper slot upon movement of the first housing to the closed position, said latch unit comprising:

a hook member adapted to be mounted movably in the first housing and having opposite first and second engaging ends extending oppositely in a transverse direction relative to the first and second slots, said hook member being movable in said transverse direction between a first transverse position, in which, said first engaging end is adapted to extend through the first slot and into the upper slot when the first housing is simultaneously positioned at the first angular position and the closed position, and

a second transverse position, in which, said second engaging end is adapted to extend through the second slot and into the upper slot when the first housing is simultaneously positioned at the second angular 5 position and the closed position; and

a hook-controlling member which is adapted to be mounted on the first housing and which is operable for moving said hook member between the first and second transverse positions.

- 10 2. The latch unit of Claim 1, wherein said hook member is movable in a lateral direction relative to the first housing between an engaging position, in which, said first engaging end is adapted to releasably engage a periphery of the upper slot when said hook member is positioned at the first transverse position, and in which, said second engaging end is adapted to releasably engage the periphery of the upper slot when said hook member is positioned at the second transverse position, and a disengaging position, in 15 which, said first engaging end disengages from the periphery of the upper slot when said hook member is positioned at the first transverse position, and in which, said second engaging end disengages from the periphery of the upper slot when said hook member is positioned at the second transverse position, said hook-controlling member being pressable for moving said hook member from the engaging position to the 20 25

disengaging position.

3. The latch unit of Claim 2, further comprising an urging member which is adapted to be disposed in the first housing for urging said hook member to the 5 engaging position.

4. The latch unit of Claim 3, wherein said hook member is in the form of a plate that has two opposite anchored ends which define said first and second engaging ends, respectively, said hook member being formed with an 10 inclined slot that extends inclinedly relative to a horizontal line between said first and second engaging ends, said hook-controlling member including a button that is adapted to be mounted movably on an exterior of the first housing, and a 15 pushing rod that projects from said button into said inclined slot and that slidably engages a periphery of said inclined slot in such a manner that movement of said button along the horizontal line results in concurrent movement of said hook member in said 20 transverse direction between said first and second transverse positions.

5. The latch unit of Claim 4, further comprising a U-shaped partition adapted to be mounted securely in the first housing, confining a mounting space therein, 25 and having a spring abutting wall, said latch unit further comprising a spring retaining member disposed in said mounting space and having a retaining wall

that is disposed between said hook member and said spring abutting wall and that is formed with a spring retaining recess confronting said spring abutting wall, said spring retaining member further having a

5 top wall formed with an intermediate slot that is adapted to be disposed between and to register with the first and second slots, said hook member extending in the transverse direction through said intermediate slot and contacting said retaining wall, said urging

10 member being in the form of a coil spring that has one end received in said spring retaining recess and the other end abutting against said spring abutting wall so as to urge said hook member to the engaging position via said spring retaining member, said hook

15 member being pushed by said pushing rod to move from the engaging position to the disengaging position when said button is pressed against the urging action of said urging member.

6. An electronic device, comprising:

20 first and second housings that are pivoted to each other, said first housing being formed with opposite first and second slots, said second housing being formed with an upper slot, said first housing being rotatable relative to said second housing about

25 a first axis to a closed position, in which, said first housing is stacked on said second housing, said first housing being rotatable relative to said second

housing about a second axis between a first angular position, in which, said first slot confronts and is registered with said upper slot upon movement of said first housing to the closed position, and a second 5 angular position, in which, said second slot confronts and is registered with said upper slot upon movement of said first housing to the closed position;

a hook member mounted movably in said first housing and having opposite first and second engaging 10 ends extending oppositely in a transverse direction relative to said first housing, said hook member being movable between a first transverse position, in which, said first engaging end extends through said first slot and into said upper slot when said first housing 15 is simultaneously positioned at said first angular position and said closed position, and a second transverse position, in which, said second engaging end extends through said second slot and into said upper slot when said first housing is simultaneously 20 positioned at said second angular position and said closed position; and

a hook-controlling member which is adapted to be mounted on the first housing and which is operable for moving said hook member between the first and 25 second transverse positions.

7. The electronic device of Claim 6, wherein said hook member is movable in a lateral direction relative to

the first housing between an engaging position, in which, said first engaging end is adapted to releasably engage a periphery of the upper slot when said hook member is positioned at the first transverse 5 position, and in which, said second engaging end is adapted to releasably engage the periphery of the upper slot when said hook member is positioned at the second transverse position, and a disengaging position, in which, said first engaging end 10 disengages from the periphery of the upper slot when said hook member is positioned at the first transverse position, and in which, said second engaging end disengages from the periphery of the upper slot when said hook member is positioned at the second 15 transverse position, said hook-controlling member being pressable for moving said hook member from the engaging position to the disengaging position.

8. The electronic device of Claim 7, further comprising an urging member which is adapted to be 20 disposed in the first housing for urging said hook member to the engaging position.

9. The electronic device of Claim 8, wherein said hook member is in the form of a plate that has two opposite anchored ends which define said first and second 25 engaging ends, respectively, said hook member being formed with an inclined slot that extends inclinedly relative to a horizontal line between said first and

second engaging ends, said hook-controlling member including a button that is adapted to be mounted movably on an exterior of the first housing, and a pushing rod that projects from said button into said 5 inclined slot and that slidably engages a periphery of said inclined slot in such a manner that movement of said button along the horizontal line results in concurrent movement of said hook member in said transverse direction between said first and second 10 transverse positions.

10. The electronic device of Claim 9, further comprising a U-shaped partition adapted to be mounted securely in the first housing, confining a mounting space therein, and having a spring abutting wall, said 15 latch unit further comprising a spring retaining member disposed in said mounting space and having a retaining wall that is disposed between said hook member and said spring abutting wall and that is formed with a spring retaining recess confronting said spring abutting wall, said spring retaining member further having a top wall formed with an intermediate slot that is adapted to be disposed between and to register with the first and second slots, said hook member extending in the transverse 20 direction through said intermediate slot and contacting said retaining wall, said urging member being in the form of a coil spring that has one end 25

received in said spring retaining recess and the other end abutting against said spring abutting wall so as to urge said hook member to the engaging position via said spring retaining member, said hook member being 5 pushed by said pushing rod to move from the engaging position to the disengaging position when said button is pressed against the urging action of said urging member.

11. A portable computer, comprising:

10 a display module having a first housing that is formed with opposite first and second slots;
a main body having a second housing that is formed with an upper slot, said first and second housings being pivoted to each other so as to permit 15 said first housing to be rotatable relative to said second housing about a first axis to a closed position, in which, said first housing is stacked on said second housing, and to permit said first housing to be rotatable relative to said second housing about a second axis between a first angular position, in which, said first slot confronts and is registered with said upper slot upon movement of said first housing to the closed position, and a second angular position, in which, said second slot confronts and is registered 20 with said upper slot upon movement of said first housing to the closed position;

25 a hook member mounted movably in said first

housing and having opposite first and second engaging ends extending oppositely in a transverse direction relative to said first housing, said hook member being movable between a first transverse position, in which,
5 said first engaging end extends through said first slot and into said upper slot when said first housing is simultaneously positioned at said first angular position and said closed position, and a second transverse position, in which, said second engaging
10 end extends through said second slot and into said upper slot when said first housing is simultaneously positioned at said second angular position and said closed position; and

a hook-controlling member which is adapted to
15 be mounted on the first housing and which is operable for moving said hook member between the first and second transverse positions.